REMARKS – General

By the above amendment, the applicant has rewritten all the claims to define the

5   invention more particularly and distinctly so as to overcome the technical

rejections and define the invention patentably over the prior art.

The References and Differences of the Present Invention Thereover

10   Applicant will discuss the reference and the general novelty of the present

invention and its unobviousness over the reference.

Yuan (US Patent 6,496,704) discloses a "Systems and methods for

internetworking data networks having mobility management functions."

15   "In particular, the invention includes systems for internetworking a CDPD network

system with an Internet protocol network, and more particularly with a Mobile

Internet Protocol Network (abstract)."

Yuan further discloses a MES 120 roaming around CDPD network 112, and

maintains Internet IP connection via HA 128. "As shown in FIG. 6, data packets

20   transmitted from remote hosts to the Mobile IP host 118 follow the Mobile IP

network protocol and are forwarded to the home agent 128 associated with that

Mobile IP host unit 118(col.11, lns 31-34)."

Specifically, Yuan's disclosure includes a CDPD network and its interaction with

main Internet. More specifically, Yuan discloses a method of having a IP based

25   Internet HOST (Fig.6, 130) communicating with CDPD mobile based device

(Fig.6, 116) via another Internet based server HA (fig.6, 128)

The applicant's current invention is a pure Internet IP based communication

system. The TDMN is internet based, which means every component of the

domains is connecting to Internet, (fig 1A, 10, Fig. 1B-1D). TDMN is part of Internet, or a group of server features virtual operational domain based on Internet. Every mobile unit PMAD connects to access domain. There is no HA designed as IP /networking proxy as Yuan's disclosure. Further, every PMAD

5   has direct Internet connection rather than establish a virtual connection going through a big coverage CDPD network 112.

In the applicant's current invention, every AP that has Internet connection is the gateway device for PMAD to joint the TDMN service. TDMU is carried, forward, stored by TDMN.

10 The Applicant's present invention provides the system function means of TDMN to ensure the receiving PMAD receives all the TDMUs when the connection between the receiving PMAD and TDMN is interrupted. However, in Yuan's disclosure, there is no similar function of TDMN that is design or able to store message, if the communication is interrupted, the message is lost, or has to be

15 resent.

Therefore, the communication system, method and function are different between Yuan's disclosure and the applicant's current invention.

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The Claim 1-11 rejections under 35 U.S.C. 102(e) as being anticipated by Yuan has been overcome

The last O.A. rejected the Claims 1-11. Claims 1-11 has been rewritten.

25 Applicant requests reconsideration of these rejections.

Rejection of Claim 1 On Yuan has been overcome

The last OA notes that "Yuan discloses an Internet based time distributed two-way communication (fig.6) comprises: Time Distributed Massages Network

(cellular digital package data (CDPD) network)". The applicant respectfully points out that the TDMN of the applicant's current invention is a network based on Internet; more specifically, the TDMN is a group of Internet based server domain. A CDPD network is a cellular phone based data service network. A CDPD

5   network is different from the Internet based TDMN. Yuan's item 116 is "a mobile data device unit 116 that includes a Mobile IP Host 118 and a CDPD compliant Mobile End Station (MES) 120 (col. 9, lns 31-33)" , therefore, the connection of item 116 is CDPD MES 120, which can only make connection via CDPD protocol. The PMAD of the applicant's current invention has a wireless

10   networking capability, and is in direct connection with AP with IP protocol. The communication scheme is different. Even if the CDPD network is compared with TDMN of the applicant's current invention, however, the other end device "HOST" (Fig.6 130) is not CDPD connected device and it has no functions of joint and communication with CDPD mobile network directly. In the applicant's current

15   invention, every communication end device PMAD is internet based and is a direct client of TDMN.
As point out by last OA, the data packaging means of Yuan's disclosure is "mobile device 116 and MDIS 126". Further, because the other end of the communication according to Yuan is computer HOST 130 (Fig.6) and it has no

20   CDPD connection at all, the data conversion in Yuan's disclosure has to be carried out somehow in other device with different function means. However, in the applicant's current invention, it is accomplished by PMAD alone. Therefore, the data packaging means are different between Yuan's disclosure and the applicant's current invention.

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The applicant has rewritten the claim 1 to reflect the differences and novelty over prior art. Accordingly applicant submits that the new claim does comply with § 102 and therefore requests withdrawal of this rejection.

The Rejection of claim 2 on Yuan has been overcome

The Access Domain consists of edge servers for providing access from APs. All the connections between servers and AP's are internet connections. A CDPD

5 base station (MDBS 26) "provides mobile data link relay functions for the MES 24 over the radio channel. In the CDPD protocol (col.1 lines 55-61). " Because of running different protocol, the function and the structure of MDBS is completely different from the Access Domain of the applicant's current invention. Core Domain and MDIS both have higher level of system functions; however, because

10 of different control target and different architecture, they are different. Also referring to previous discussion, the TDMN operation means is different than Yuan's Host 130 and HA 128. On rejection of claim 1, the last OA has already referenced CDPD network to the TDMN. The applicant respectfully point out that, due to the different communication scheme, Yuan's HOST 130 is the

15 communication's other end. Yuan's HOST 130 is not part of CDPD network, therefore, it's impossible to reference it to "TDMN operations means". Yuan's HA 128 "employs a decapsulation program to remove the IP header information and collect the original data packet. The data packet then travels to the host 130 with the original source address set as the mobile host 190 address, and the

20 destination address given as the address of the host 130 (col.13, lines 16-21)." Therefore, even if we can reference it to the "TDMN operations means", because its main function is doing data packet conversion between two different type of networks, it is different from the "TDMN operation means" which operates on and with only Internet. Further, because of the function target of "TDMN operation

25 means" is PAMD which is different from the access devices of Yuan's disclosure, the two operation means are different.

The applicant has rewritten the claim 2 to reflect the differences and novelty over prior art. Accordingly applicant submits that the new claim does comply with § 102 and therefore requests withdrawal of this rejection.

5   **The Rejection of claim 3 On Yuan has been overcome**

The last OA noted the Yuan's BS (fig.6) is the same as the applicant's Access domain, which comprises APs and Access Servers. The applicant respectfully points out that a wireless AP is completely different from a CDPD mobile Base

10   Station in function, architecture, and almost every aspect. Further, in the previous rejection of claim 2, the last OA note that Yuan reveals "... comprises Access Domain (mobile database station MDBS 26, col.1 lines 55-61)," In directly, the last OA already agreed that the applicant's Access Domain is a unique design and much different than the prior art of Yuan.

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The applicant has rewritten the claim 3 to reflect the differences and novelty over prior art. Accordingly applicant submits that the new claim does comply with § 102 and therefore requests withdrawal of this rejection.

20   **The Rejection of claim 4 On Yuan has been overcome**

According to Yuan "The network area 22 also includes a mobile data intermediate system (MDIS) 28 which controls mobility and performs registration, authentication, and routing functions. The MDIS 28 is a network gateway and also controls the MDBS 26 in connection with radio resource management (col.1

25   lines 63-67)." Further, "The MDIS 28 from the first area 22 and the MDIS 38 from the second area 32 function as gateways into a conventional Internet protocol and/or connectionless protocol network backbone 42. (col.2, In 10-13)." To the best understanding, last OA is referring MDBS to Access Domain, and MDIS to the Core Domain. As discussed before, a MDBS is completely different

with the Access Domain of the applicant's current invention. A MDBS dose not
have direct main "Internet" connection is different with the Access Domain of the
applicant's current invention. The MDIS is the gateway device for the local
network area. Therefore, the MDIS is different than the Core Domain of the

5   applicant's current invention.

The applicant's TDMN is a group of server means that runs on Internet. The way
of inter domain communication is all based on Internet, and so is the inter domain
management. Even if we want to compare Yuan's MDIS to core domain and
MDBS to access domain, because MDIS and MDBS are running on CDPD

10   network, the "inter domain" communication must be different and so is the "inter
domain management". Further, because one of the communication end HOST
130 never has connection to MDBS, the MDBS of Yuan's disclosure is
completely different from the access domain of the applicant's current invention.
This also defines a different "inter domain" relationship between Yuan's

15   disclosure and the applicant's current invention.

The applicant has rewritten the claim to reflect the differences and novelty over
prior art. Accordingly applicant submits that the new claim does comply with §
102 and therefore requests withdrawal of this rejection.

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The Rejection of claim 5-7 On Yuan has been overcome

According to Yuan "A mobility service controller, as the term is employed herein,
may be understood to encompass any system capable of tracking a network

25   connection to a mobile data device and for routing data to the mobile data
device, and can include a Mobile IP home agent, a CDPD MDIS or any other
suitable system. A mobility service controller can be a data processing system
operating a computer program that directs the data processing system to track
the network connection of a mobile data device(col.6 lines 25-33)." Specifically,

Yuan discloses how a home agent 128 manages IP communication and couples
with CDPD network (Col.10 lines 20-53). Fundamentally, Yuan's disclosure
comprises two separate networks: an Internet and a CDPD mobile network.
However, the applicant's current invention only has one network; everything is
5   based on Internet. Therefore the operation means to manage TDMN and PAMD
is totally different from Yuan's disclosure.

Further, as pointed out by last OA, " ... and the communications among PAMDs
(col.6 line 25-33, col.10, lines 20-53)", the are following devices listed A mobile IP
Home agent (Fig.6, 128), a CDPD MDIS (Fig.6 126) remote Host (fig.6 130),
10   CDPD network device 120, and mobile unit 116. All the devices above are
communication via two networks (fig.6, 112 and 114) with different protocol and
connections. There is no one to one matching comparison between these
devices and the PAMD of the applicant's current invention.

Still further, referring to discussion in responds to rejections of claim 1,2,3 and
15   11, because of the networks are different (TDMN is different from Yuan's
disclosure) and the devices are different (PAMD is different from Yuan's MES
120), therefore the network operation means to manage and operate both
communication are different.

20   The applicant has rewritten the claim to reflect the differences and novelty over
prior art. Accordingly applicant submits that the new claim does comply with §
102 and therefore requests withdrawal of this rejection.

Rejection of claim 8-10 On Yuan has been overcome
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According to Yuan, "As depicted by FIG. 6, the registration of the CDPD device
120 and the Mobile IP host 118 with the respective network elements 112 and
114 allows the Mobile unit 116 to transmit IP compliant data packets across the
interconnected networks 112 and 114 and to the remote host 130.(col.11, lines

19-23)" Specifically, Yuan converts IP into CDPD packet transmit through BD 124, MDIS 126 and IP/CLNP 112, and via special path 140 to Internet, where the remote host 130 has only Internet IP connection. Yuan further details as "In one typical sequence of operations, the Mobile IP host 118 passes data packet to the

5   cellular modem 120 that transmits via airlink the data packets to the MDBS 124. The MDBS 124 provides the IP compliant data packets to the MDIS 126 which may then employ the connectionless Internet protocol for transferring the data packets across the CDPD network 112 and the Internet network 114 to the IP host 130.(Col.11, lines 23-30)"

10   The IP packet in Yuan's disclosure has been converted into different format multiple times and carried out through multiple devices. Specifically, because of different communication scheme, the message from one IP client (client of CDPD network via CDPD device 120) is converted to be transmitted via CDPD network, and then to Internet, and then to the remote host 130 (which is not a client of

15   CDPD network). Further, referring to discussion of claim rejection on claim 1, the last OA references YUAN's CDPD network as to compare with the applicant's TDMN. However, in YUAN's disclosure, the two communication end device HOST 130 and Mobile unit 116 (Fig.6) are respectfully connecting to different network of Internet and CDPD network. Therefore, the data packaging means

20   needs at least process for both Internet and CDPD network, and the functions running at different end is different from each other.

The data packaging of the applicant's current application PMAD is the only device pack and unpack source date into TDMU and communicate between PMAD via Internet on time distributed bases.

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Therefore, the data packaging means and method of transmitting and receiving message via internet are completely different between Yuan's disclosure and the applicant's current invention.

The applicant has rewritten the claim to reflect the differences and novelty over prior art. Accordingly applicant submits that the new claim does comply with § 102 and therefore requests withdrawal of this rejection.

5   **The Rejection of claim 11 on Yuan has been overcome**

The last OS noted "Yuan reveals the PAMD comprises means to join in the TDMN (MES 120, col.9 lines 58-59, 63-65), means to convert data resource to be transferred into TDMU and means to convert the received TDMU into original

10   format (col.11 lines 19-30), and means to control the communication with other PAMD (Fig.1, col.9 lines 52-67, col.10 lines 1-19)"
Fundamentally, the PAMD of applicant's current invention has means to join the TDMN with Internet network means, which is different with Yuan's MES of join a CDPD network. Further, the other end of Yuan's communication HOST 130 has

15   only connection to Internet; it can never join a CDPD network.
Referring to previous discussion of claim 5-7 rejections, the last OA has referenced PAMD with a group of devices. However, there is no direct match comparisons. In the current rejection, by comparing a MES of CDPD to the PAMD, the communication system is complete different, because of a CDPD

20   mobile network is not Internet, the MES has no Internet communication capability. In another word, all the feature sets that MES may have make no comparison to the PAMD of the applicant's current invention. The fundamental PAMD feature of the applicant's current invention is about do communication to a remote PAMD via Internet.

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The applicant has rewritten the claim to reflect the differences and novelty over prior art. Accordingly applicant submits that the new claim does comply with § 102 and therefore requests withdrawal of this rejection.

Conclusion

For all of the above reasons, the applicant submits that the specification and claims are now in proper form, and that the claims all define patentably over the
5   prior art. Therefore he submits that this application is now in condition for allowance, which action he respectfully solicits.

Conditional Request for Constructive Assistance

10   Applicant has amended the claims of this application so that they are proper, and define novel structure which is also unobvious. If, for any reason this application is not believed to be in full condition of allowance,
Applicant respectfully request the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. § 2173.02 and § 707.07(j) in order that the
15   undersigned can place this applicant in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,

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